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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Docket: QT-4331  
Richard J. Ericson : Date: August 1, 2001  
Serial No. 09/162,821 : Group Art Unit: 3652  
Filing Date: September 29, 1998 : Examiner: S. McAllister

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Technology Center 2100

Title: ELEVATOR SYSTEM HAVING DRIVE MOTOR LOCATED BELOW THE  
ELEVATOR CAR

Assistant Commissioner for Patents  
Washington, D.C. 20231

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Date 8-10-01

REPLY BRIEF

1. REAL PARTY IN INTEREST

No additional comments are made regarding the Real Party in Interest.

2. RELATED APPEALS AND INTERFERENCES

No additional comments are made regarding related appeals and interferences.

3. STATUS OF CLAIMS

No additional comments are made regarding the status of claims.

4. STATUS OF AMENDMENTS

No additional comments are made regarding the status of amendments.

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TO 3600 MAIL ROOM

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**5. SUMMARY OF INVENTION**

In view of the Examiner's Answer regarding support for the claims, Applicant wishes to more specifically submit that support for the claimed inventions of Claims 2-5 and 16-19 may be found in figures 1 and 2 and on pages 1, line 28 to page 6, line 29. As Claim 2 is generic to both the species of figure 1 and figure 2, both figures and the description associated with both figures provide support for Claim 2.

**6. ISSUE**

No additional comments are made regarding the issue.

**7. GROUPING OF THE CLAIMS**

In view of the allegation in Examiner's Answer that Claims 6 and 20 of Group 2 are not separately patentable, Applicant submits the following. First, the standard is whether Claims 6 and 20 are patentably distinct from Claims 5 and 19. The allegation in Examiner's Answer is based on looking at the element added by Claims 6 and 20 alone. Along those lines, Examiner makes the allegation that tension mechanisms by themselves are old and well known in the art. However, if the totality of claims 6 and 20 are examined as required, then the patentably distinct element of these claims is the tension applying mechanism being engaged with the deflector sheave of an elevator system with *the machine below* and such that it maintains *the drive rope* in a taut condition, not simply the addition of a tension mechanism to an elevator system. Second, the prior art cited in Examiner's Answer does not disclose the feature claimed in Claims 6 and 20. In JP 64-21180, the tension mechanism is applied to a compensation chain (see Fig. 3) and not to a drive rope. Tension for the drive rope of JP 64-21180 is provided by the weight of the car and counterweight, as is conventional for machine above configurations such as JP 64-21180.

Therefore, Applicant maintains that Claims 6 and 20 are patentably distinct from the claims from which they depend and therefore are grouped separately.

**8. ARGUMENT**

**(1) Whether the Examiner has met his burden to establish a prima facie case of obviousness under 35 U.S.C. 103 in the rejection of Claims 2, 5, 6, 16, 19 and 20 over Gale in view of Tokyo Rope?**

In view of the Response to Argument in Examiner's Answer, Applicant submits the following points.

It must be taken into consideration that the primary prior art used to show a flat traction rope is a non-English language document and therefore we are relying upon a translation of that document. The interpretation of what is disclosed within that document must take into account the broad range of terminology that can be used in the translation.

This rejection using Tokyo Rope is focused on a single term that is presented in the alternative, i.e., the phrase "...used as a hoist rope or balance rope in elevators, etc.". One interpretation is that two different applications in an elevator system are being disclosed: one as a lifting rope and another as a balance rope. This is the interpretation used within the Rejection. A second interpretation is that the author is describing a rope that may be used in hoisting applications such as a balance rope in elevators. A third interpretation even exists: that the rope may be used to hoist or suspend objects or that it may be used as a balance rope in elevators.

First, Applicant wishes to point out that none of these possible interpretations, including the one seized upon in the Rejection, discloses or suggests using the rope disclosed in Tokyo Rope as a drive rope that could be engaged with a drive sheave.

Second, when faced with a vague phrase within a multiple page translated document, the remainder of the document should be used to characterize the single phrase. In this instance, the remainder of the document refers to a "ribbon form" rope, of which the conventional type is formed by knitting together individual ropes. Such "knitted together" ropes are not applicable as drive ropes in elevator applications, as the differential tensions within the ropes leads to movement between individual ropes and such "knitting together" would either give way to the differential tension or amplify it.

Further, the only application of this rope described in the description is as a balance rope (see middle of the fifth paragraph on page 2 of the translation), with the undesirable consequence being that the rope bulges outward and contacts the wall surfaces of the pit. Such bulging is not a problem with ropes under significant tension, as are elevator drive ropes, but is a problem with balance ropes.

Examiner further alleges that hoisting ropes and balance ropes face the same types of problems and therefore the solutions proposed in Tokyo Rope would be applicable to both ropes. First, Applicant wishes to make clear that the claimed invention includes the specific element of a *drive rope* engaged with a drive sheave to move the elevator car, not simply a hoisting or lifting rope and not a balance rope. Second, the fact that many different ropes may face similar concerns (ease of manufacturing, flexibility, wear, etc.) does not mean that all ropes are interchangeable. As discussed previously, drive ropes are different from lifting or suspension ropes, which are different from balance or compensation ropes.

Therefore, it is clear from the remainder of the document that the rope disclosed in Tokyo Rope is a balance rope. Further still, even if the rope had other hypothetical applications, there is no disclosure or suggestion to use the rope disclosed in Tokyo Rope as a drive rope in an elevator system.

With respect to Claims 6 and 20, Examiner alleges that Gale discloses the elements of these claims. According to the Examiner, deflector sheave 20 of Gale is inherent in the tensioning mechanism. However, Applicant submits that the claims include having the deflector sheave engaged with the tensioning mechanism to apply a downward force on the deflector sheave. In Gale, the deflector sheave 20 is clearly mounted to the floor of the pit and no downward force is applied to it. Therefore, this rejection of Claims 6 and 20 is traversed.

Therefore, with respect to the rejection of Claims 2, 5, 6, 16, 19 and 20, Applicant maintains that this rejection fails to meet the burden of proof required to support a rejection under 35 U.S.C. §103. In view of the traversal of this rejection, Applicant respectfully requests that this rejection be reversed.

**(2) Whether the Examiner has met his burden to establish a prima facie case of obviousness under 35 U.S.C. 103 in the rejection of Claims 3, 17 and 18 over Gale in view of Tokyo Rope, and further in view of Murtaugh?**

In response to the allegations in Examiner's Answer, Applicant simply refers back to the submissions in the Appeal Brief.

**(3) Whether the Examiner has met his burden to establish a prima facie case of obviousness under 35 U.S.C. 103 in the rejection of Claims 13, 14, 27 and 28 over Gale in view of Tokyo Rope, and further in view of Aulanko et al.**

Applicant makes no additional comments regarding this rejection and refers back to the Appeal Brief.

**(4) Whether the Examiner has met his burden to establish a prima facie case of obviousness under 35 U.S.C. 103 in the rejection of Claims 2-4 and 16-19 over Murtaugh in view of Gale and Tokyo Rope.**

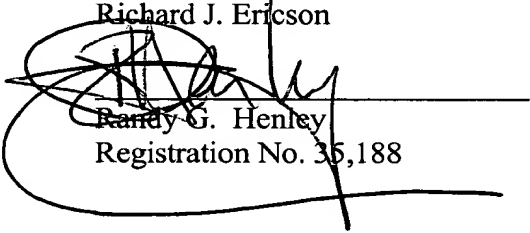
Applicant makes no additional comments regarding this rejection and refers back to the Appeal Brief.

**CONCLUSION**

As Applicant has traversed each and every rejection raised by the Examiner, it is respectfully requested that the rejections be reversed and the rejected claims be passed to issue. Please charge any additional fees or credit overpayment to Deposit Account No. 15-0750, Order No. OT-4331.

Respectfully submitted,

Richard J. Ericson

  
Randy G. Henley  
Registration No. 35,188

Otis Elevator Company  
Ten Farm Springs  
Farmington, CT 06032  
(860) 676-5742